

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

Claims 1-36 (canceled).

1                   37.     (New) A method for artificially ageing a catalyst device for use on a  
2 catalyst test bench for converting exhaust gases comprising at least one constituent from the  
3 group consisting of C-, HC- and NO<sub>x</sub>-containing constituents, in which method hot ageing gas  
4 which comprises at least one constituent from the group consisting of C-, HC- and  
5 NO<sub>x</sub>-containing constituents is allowed for flow through the catalyst device, the hot ageing gas  
6 being passed through a catalyst device which is for use on a catalyst test bench and is suitable for  
7 the conversion of exhaust gases comprising C-, HC- and/or NO<sub>x</sub>-containing constituents,  
8 characterized in that gas which emerges from the catalyst device is partially admixed with the  
9 ageing gas to be fed to the catalyst device, in order to be recirculated.

1                   38.     (New) The method of claim 37, characterized in that the host ageing gas  
2 used is an exhaust gas generated by combustion of a C-containing fuel.

1                   39.     (New) The method as claimed in claim 38, characterized in that the hot  
2 exhaust gas is generated in a burner by combustion with combustion air.

1                   40.     (New) The method as claimed in claim 38, characterized in that the hot  
2 exhaust gas is generated in a gas turbine.

1                   41.     (New) The method as claimed in claim 37, characterized in that the hot  
2 ageing gas is passed through the catalyst device by means of a blower.

1                   42.     (New) The method as claimed in claim 37, characterized in that the  
2 ageing gas is introduced into the catalyst device at a temperature of > 250°C.

1                   43.     (New) The method as claimed in claim 42, characterized in that the  
2 ageing gas is introduced into the catalyst device at a temperature of  $> 700^{\circ}\text{C}$ .

1                   44.     (New) The method as claimed in claim 43, characterized in that the  
2 ageing gas is introduced into the catalyst device at a temperature of from approximately  $1000^{\circ}\text{C}$   
3 to approximately  $1250^{\circ}\text{C}$ .

1                   45.     (New) The method as claimed in claim 39, characterized in that the hot  
2 exhaust gas is generated during combustion operation with  $\lambda > 1$ .

1                   46.     (New) The method as claimed in claim 45, characterized in that the hot  
2 exhaust gas is generated during combustion operation with  $\lambda > 1.5$ .

1                   47.     (New) The method as claimed in claim 38, characterized in that the fuel  
2 used is a combustible C-containing fluid selected from the group consisting of gaseous and liquid  
3 fluids.

1                   48.     (New) The method as claimed in claim 47, characterized in that the fuel  
2 used is low sulfur fuel.

1                   49.     (New) The method as claimed in claim 48, characterized in that a fuel  
2 with a sulfur content of  $> 10$  ppm is used.

1                   50.     (New) The method as claimed in claim 49, characterized in that a fuel  
2 with a sulfur content of  $> 5$  ppm is used.

1                   51.     (New) The method as claimed in claim 38, characterized in that the ratio  
2 of fuel to combustion air is varied in predetermined cycles.

1                   52.     (New) The method as claimed in claim 51, characterized in that the  
2 catalyst device is subjected to different ageing gas compositions and ageing gas temperatures  
3 corresponding to a combined load cycle.

1                   53.     (New) The method as claimed in claim 52, characterized in that the  
2 catalyst device is subjected to load corresponding to mixed vehicle operation.

1                   54.     (New) The method as claimed in claim 37, characterized in that the  
2 catalyst device is subjected a number of times, in each case after an ageing step, to a diagnosis,  
3 in which the amplitude ratio of a post-cat sensor as a measure of the oxygen storage capacity is  
4 compared with a model, the model being matched to a relevant limit catalyst and a limit value  
5 being determined from the amplitude ratio between the current signal of the post-cat sensor  
6 compared to the modeled post-cat sensor signal, the post-cat sensor signal being taken as a  
7 measure of the oxygen storage capacity of the catalyst device.

1                   55.     (New) The method as claimed in claim 37, characterized in that the  
2 ageing gas fed to the catalyst device is cooled.

1                   56.     (New) The method as claimed in claim 55, characterized in that the  
2 ageing gas fed to the catalyst device is cooled by gas emerging from the catalyst device.

1                   57.     (New) The method as claimed in claim 56, characterized in that gas  
2 emerging from the catalyst device is admixed in cooled form with the ageing gas that is to be fed  
3 to the catalyst device.

1                   58.     (New) The method as claimed in claim 37, characterized in that the  
2 temperature of the ageing gas fed to the catalyst device is varied by cooling independently of the  
3 setting of lambda during generation of the ageing gas.

1                   59.     (New) The method as claimed in claim 37, characterized in that at least  
2 one component is admixed to the hot ageing gas in order to set a defined composition of the  
3 ageing gas.

1                   60.     (New) The method as claimed in claim 59, characterized in that at least  
2 one component selected from the group consisting of C- and HC-containing gas constituents is  
3 admixed.

1                   61.     (New) The method as claimed in claim 37, characterized in that the  
2 ageing gas is generated synthetically.

1                   62.     (New) The method as claimed in claim 37, characterized in that a catalyst  
2 device selected from the group consisting of a 3-way catalyst, an NO<sub>x</sub> catalyst, an oxidation  
3 catalyst, a reformer for reducing agent and a reformer for fuel cells is aged using the ageing gas.

1                   63.     (New) An apparatus for artificially ageing a catalyst device for use on a  
2 catalyst test bench for converting exhaust gases comprising at least one constituent from the  
3 group consisting of C-, HC- and NO<sub>x</sub>-containing constituents, in which a device for generating a  
4 hot ageing gas and a device for passing the hot ageing gas through the catalyst device are  
5 provided, characterized in that a device for partial recirculation of gas emerging from the catalyst  
6 device to the ageing gas is provided.

1                   64.     (New) The apparatus as claimed in claim 63, characterized in that the  
2 device for generating a hot ageing gas is a device for combustion of a C-containing fuel with  
3 combustion air.

1                   65.     (New) The apparatus as claimed in claim 64, characterized in that the  
2 device for passing the hot ageing gas through the catalyst device is a hot-air blower.

1                   66.     (New) The apparatus as claimed in claim 64, characterized in that the  
2 device for passing the hot ageing gas through the catalyst device is a suction jet pump.

1                   67.     (New) The apparatus as claimed in claim 63, characterized in that a  
2 temperature sensor is provided for measuring the temperature of the ageing gas that is to be fed  
3 to the catalyst device.

1                   68.     (New) The apparatus as claimed in claim 67, characterized in that a device  
2 for controlling the temperature of the ageing gas that is to be fed to the catalyst device is  
3 provided.

1                   69.   (New) The apparatus as claimed in claim 63, characterized in that a  
2 device for cooling the ageing gas that is to be fed to the catalyst device is provided.

1                   70.   (New) The apparatus as claimed in claim 69, characterized in that the  
2 device for cooling the ageing gas that is to be fed to the catalyst device comprises a device for  
3 cooling recirculated gas emerging from the catalyst device.

1                   71.   (New) The apparatus as claimed in claim 63, characterized in that an  
2 oxygen sensor is provided at the outlet of the catalyst device for the purpose of monitoring the  
3 catalyst device.

1                   72.   (New) The apparatus as claimed in claim 63, characterized in that an  
2 oxygen sensor is provided for the purpose of monitoring the ageing gas that is to be fed to the  
3 catalyst device.